

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,720,014 B1  
APPLICATION NO. : 09/580515  
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INVENTOR(S) : Jay M. Short

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 85 Line 45 replace Claim 18

18. A method to produce a foodstuff containing a microbial phytase comprising:

a) providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from

i) SEQ ID NO: 1, and

ii) SEQ ID NO:1, wherein T can also be U;

b) culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed as a polypeptide; and

c) converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the foodstuff contains phytate and the phytase.

Add the Following Claims:

41. The method of claim 18, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.

42. The method of claim 18, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.

43. The method of claim 41, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.

44. The method of claim 43, wherein the control sequence comprises a tissue-specific promoter that is specific for the plant cells, plant parts or plants.

45. The method of claim 43, wherein the control sequence comprises a constitutive promoter.

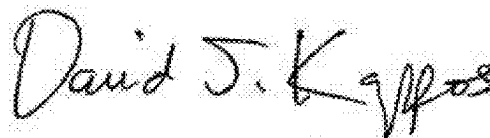
46. The method of claim 18, wherein the phytase catalyzes liberation of inorganic phosphate from the phytate in the foodstuff.

47. The method of claim 46, wherein the liberation occurs after the ingestion of said foodstuff by a recipient organism.

48. The method of claim 46, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs in part prior to and in part after the ingestion of said foodstuff by a recipient organism.

49. The method of claim 46, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs prior to the ingestion of said foodstuff by a recipient organism.

Signed and Sealed this  
First Day of February, 2011



David J. Kappos  
*Director of the United States Patent and Trademark Office*

50. The method of claim 18, further comprising purifying the expressed polypeptide.
51. The method of claim 18, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having the nucleotide sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions.
52. The method of claim 18, wherein the foodstuff is for a non-ruminant animal.
53. The method of claim 18, wherein the foodstuff is for a monogastric animal.
54. The method of claim 18, wherein the plant cells, plant part, or plant is of a dicotyledonous species.
55. The method of claim 18, wherein the plant cells, plant part, or plant is of a monocotyledonous species.
56. A method to produce a foodstuff containing a microbial phytase comprising:
  - a. providing a plant cell, plant part or plant that contains a recombinant expression vector comprising a phytase-encoding nucleic acid having a nucleotide sequence selected from
    - i. a sequence encoding a polypeptide sequence as set forth in SEQ ID NO:2 and
    - ii. a sequence encoding the polypeptide sequence as set forth in SEQ ID NO:2, wherein T can also be U;
  - b. culturing the plant cell, plant part or plant under conditions wherein said nucleic acid is expressed; and
  - c. converting said plant cells, plant parts or plants into a composition suitable for foodstuff, wherein the foodstuff contains phytate and the phytase.
57. The method of claim 56, wherein the recombinant expression vector comprising the nucleic acid encoding said phytase is within a host cell.
58. The method of claim 56, wherein said phytase-encoding nucleic acid is operably linked to a polynucleotide encoding a signal peptide.
59. The method of claim 57, wherein the nucleic acid is operably linked to a transcription control sequence operable in said plant cells, plant parts or plants.
60. The method of claim 59, wherein the control sequence comprises a tissue-specific promoter that is specific for the plant cells, plant parts or plants.
61. The method of claim 59, wherein the control sequence comprises a constitutive promoter.
62. The method of claim 56, wherein the phytase catalyzes liberation of inorganic phosphate from the phytate in the foodstuff.
63. The method of claim 62, wherein the liberation occurs after the ingestion of said foodstuff by a recipient organism.
64. The method of claim 62, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs in part prior to and in part after the ingestion of said foodstuff by a recipient organism.
65. The method of claim 62, wherein the liberation of the inorganic phosphate from the phytate in said foodstuff occurs prior to the ingestion of said foodstuff by a recipient organism.
66. The method of claim 56, further comprising purifying the expressed polypeptide.
67. The method of claim 56, wherein the plant comprises seeds containing the phytase encoded by a nucleic acid having a sequence as set forth in SEQ ID NO:1 to be used to catalyze phytate-hydrolyzing reactions.
68. The method of claim 56, wherein the foodstuff is for a non-ruminant animal.
69. The method of claim 56, wherein the foodstuff is for a monogastric animal.
70. The method of claim 56, wherein the plant cell, plant part, or plant is of a dicotyledonous species

71. The method of claim 56, wherein the plant cell, plant part, or plant is of a monocotyledonous species.

72. The method of claim 18, wherein the foodstuff is an animal feed.

73. The method of claim 46, wherein the foodstuff is an animal feed.

74. The method of claim 52, wherein the foodstuff is an animal feed.

75. The method of claim 53, wherein the foodstuff is an animal feed.

76. The method of claim 56, wherein the foodstuff is an animal feed.

77. The method of claim 62, wherein the foodstuff is an animal feed.

78. The method of claim 68, wherein the foodstuff is an animal feed.

79. The method of claim 69, wherein the foodstuff is an animal feed.